

CLAIMS

1. A device for displaying images comprising:
  - an image display panel (1) comprising a first array
  - 5 (X) and a second array (Y) of electrodes which serve an array of cells (11), where each cell is powered between an electrode of the first array and an electrode of the second array effecting between them an intrinsic capacitor  $C_i$ ,
  - 10 - power supply means (4) for generating a potential difference between two terminals,
  - drive means (2, 3, 5) adapted for successively connecting each electrode ( $Y_1, Y_2, Y_3, Y_4 \dots$ ) of the second array to one of the terminals of the power
  - 15 supply means (4), and, during a sequence of connection of an electrode of the second array, for simultaneously connecting one or more or even all the electrodes ( $X_1, X_2, X_3, X_4 \dots$ ) of the first array to the other terminal of the power supply means,
  - 20 characterized in that the drive means are adapted for being able, during each sequence of connection of an electrode of the second array, to transfer to the cell powered between each electrode of the first array and this electrode of the second array, the charge of the
  - 25 intrinsic capacitors of the other cells linked to the same electrode of the first array.
2. The device as claimed in claim 1, characterized in that the drive means are adapted so that, during each
- 30 sequence of connection of an electrode of the second array, the transfer of charge via each of the electrodes of the first array is favored at the expense of the connection of these electrodes to said power supply means.
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3. The device as claimed in claim 1 or 2, characterized in that, each image to be displayed being divided into pixels or subpixels to which are allocated

luminous intensity data, each cell of the panel being assigned to a pixel or subpixel of the images to be displayed, it comprises means of processing said data so as to be able, during each sequence of connection of an electrode of the second array, to modulate the duration of connection  $t'_{a1}$  of each electrode of the first array to said power supply means (4) and to modulate the duration of transfer of charge  $t'_{a2}$  of the intrinsic capacitors of the other cells linked to the same electrode of the first array, as a function of the luminous intensity datum of the cell powered between this electrode of the first array and this electrode of the second array.

4. The device as claimed in claim 3, characterized in that the drive means are adapted so that, during each sequence of connection of an electrode of the second array, said connection of each electrode of the first array to said power supply means (4) is carried out, as appropriate, at the end of a sequence and said transfer of charges is carried out, as appropriate, at the start of a sequence.

5. The device as claimed in any one of the preceding claims, characterized in that it is adapted so that:

- if  $t_L$  is the duration of each sequence of connection of an electrode of the second array,
  - if  $C_i$  is the mean value of the intrinsic capacitance of each cell, and if the second array has  $G$  electrodes,
  - if  $R_{EL}$  is the mean electrical resistance of an activated cell,
- we have:  $G \times C_i > 40 \% \times 0.2 t_L / R_{EL}$ .

6. The device as claimed in any one of the preceding claims, characterized in that it is adapted so that:

- if  $t_L$  is the duration of each sequence of connection of an electrode of the second array,

- if  $C_i$  is the mean value of the intrinsic capacitance of each cell, and if the second array has G electrodes,

5 - if  $R_{EL}$  is the mean electrical resistance of an activated cell,  
the ratio  $t_L/R_{EL}.C_i$  is greater than 4.

7. The device as claimed in any one of the preceding claims, characterized in that said cells are  
10 electroluminescent.

8. The device as claimed in claim 7, characterized in that each cell comprises an organic electroluminescent layer.  
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9. The device as claimed in claim 8, characterized in that the thickness of said layer is less than or equal to 0.2  $\mu\text{m}$ .